

**Amendment to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (currently amended) A method for preparing a native, acellular nerve tissue replacement comprising the steps of:
  - obtaining a nerve tissue;
  - soaking the nerve tissue for at least six hours in a solution comprising one or more sulfobetaines;
  - treating the nerve tissue in a mixture of one or more sulfobetaines ~~with~~ and Triton X-200 an  
~~anionic surface-active detergent~~; and
  - washing the nerve tissue in one or more solutions of a buffered salt to remove ~~the~~ excess anionic surface-active detergent to form the native, acellular nerve tissue replacement with significantly reduced immunologic response.
2. (previously amended) The method of claim 1, further comprising the step of storing the native, acellular nerve tissue replacement in a buffered salt solution until needed.
3. (original) The method of claim 1, wherein the sulfobetaines have hydrophilic tails of 10 to 16 carbons.
4. (previously amended) The method of claim 1, further comprising the step of:  
adhering one or more bioactive agents to the tissue.
- 5-6. (cancelled)
7. (previously amended) The method of claim 4, wherein the one or more bioactive compounds comprises a drug.
8. (cancelled)
9. (currently amended) The method of claim 1, wherein the native, acellular nerve tissue replacement comprises a structure selected from the group consisting of a ~~suture~~, tube, sheet, film, scaffold, ~~valve, limb replacement, and~~ tissue transplant, ~~and joint~~ for delivery into the body.
10. (original) The method of claim 1, wherein the sulfobetaine comprises SB-16.
11. (cancelled)
12. (previously amended) The method of claim 1, wherein the step of washing the nerve tissue

comprises one or more washes in a buffered salt solution comprising 100 mM sodium and 50 mM phosphate for at least 15 minutes each.

13. (currently amended) The method of claim 1, wherein the nerve tissue is harvested from a mammalian cadaver.

14. (previously amended) The method of claim 13, wherein the nerve tissue is cleaned of fat and blood after harvesting and rinsed two or more times in deionized distilled water.

15. (currently amended) A native, acellular nerve tissue replacement with significantly reduced immunologic response made by the method of claim 1.

16. (currently amended) A kit for tissue replacement comprising the native, acellular nerve tissue replacement with significantly reduced immunologic response of claim 15.

17. (currently amended) The kit of claim 16, wherein the native, acellular nerve tissue replacement further comprises a tube, a sheet, a film, a scaffold, or a nerve tissue transplant.

18. (previously amended) The kit of claim 17, wherein the native, acellular nerve tissue replacement further comprises a polymer, a bioactive compound or combinations thereof.

19. (previously amended) The kit of claim 17, further comprising a sheet of instructions for use of the native, acellular nerve tissue replacement.

20-40. (cancelled)

41. (currently amended) A method for preparing a native, acellular nerve tissue replacement comprising the steps of:

obtaining a nerve tissue;

soaking the nerve tissue for at least six hours in a solution comprising one or more sulfbetaines;

treating the nerve tissue in a mixture of one or more sulfbetaines ~~with and an anionic surface-active detergent~~ Triton X-200; and

washing the nerve tissue in one or more solutions of a buffered salt to remove the excess anionic surface-active detergent to form the native, acellular nerve tissue replacement, wherein the basal laminar and endoneurium layer retain substantially the native extracellular matrix structure.

42. (cancelled).

43. (currently amended) The method of claim ~~41~~ 42, wherein the native, acellular nerve tissue replacement, when implanted, has a T-cell mediated immune response that is less than an immune

response triggered by an ~~allogenic~~ alloantigenic implant.

44. (previously presented) The method of claim ~~41~~ 42, wherein the native acellular nerve tissue replacement allows for higher axon density when implanted relative to a tissue graft made acellular by a freeze/thaw or a Triton X-100 process.